CLAIMS:

1. Use of a PP2A/Bγ subunit as a target for screening candidate modulators.
2. Use of a PP2A phosphatase comprising a PP2A/Bγ subunit as a target for screening candidate modulators.
3. The use of claims 1 or 2, wherein said modulator specifically modulates a PP2A phosphatase comprising the PP2A/Bγ subunit.
4. The use of any of claims 1 to 3, wherein said candidate modulator is selected from the group consisting of a natural ligand, a small molecule, an antibody, an antisense RNA, an aptamer and a short interfering RNA.
5. The use of any of claims 1 to 4, wherein said modulator is a candidate drug for the treatment of a mental disorder.
6. Use of modulator of a PP2A phosphatase comprising a PP2A/Bγ subunit for preparing a medicament for the treatment of a mental disorder.
7. The use of claim 6, wherein said modulator specifically modulates a PP2A phosphatase comprising the PP2A/Bγ subunit.
8. Use of a gene therapy vector comprising a polynucleotide encoding a PP2A/Bγ subunit for preparing a medicament for the treatment of a mental disorder.
9. The use of any of claims 1 to 8, wherein said modulator is used in combination with a known drug for said treatment of said mental disorder.
10. The use of any of claims 5 to 9, wherein said mental disorder is selected from the group consisting of bipolar disorder, schizophrenia and depression.
11. The use of claim 10, wherein said mental disorder is bipolar disorder.
12. Use of a PP2A/Bγ subunit as a target for screening for natural binding partners.
13. A method of assessing the efficiency of a modulator of a PP2A phosphatase comprising a PP2A/Bγ subunit for the treatment of a mental disorder, said method comprising administering said modulator to an animal model for said mental disorder; wherein a determination that said modulator ameliorates a representative characteristic of said mental disorder in said animal model indicates that said agonist is a drug for the treatment of said mental disorder.

14. The method of claim 13, wherein said animal model is the STOP -/- mice with synaptic defects and severe behavioral disorders.

15. The method of claims 13 or 14, wherein said modulator specifically modulates a PP2A phosphatase comprising the PP2A/Bγ subunit.

16. The method of any of claims 13 to 15, wherein said mental disorder is selected from the group consisting of bipolar disorder, schizophrenia and depression.

17. The method of claim 16, wherein said mental disorder is bipolar disorder

18. Use of at least one PP2A/Bγ-related biallelic marker for diagnosing whether an individual suffers from or is at risk of suffering from a mental disorder.

19. The use of claim 18, wherein said PP2A/Bγ-related biallelic marker is selected from the group consisting of 99-24169/139, 24-257/320, 99-24175/218 and 24-247/216 as depicted in table 3A and the complements thereof.

20. The use of claim 19, wherein presence of a genotype "AA" at biallelic marker 99-24169/139 is indicative of said individual suffering from or being at risk of suffering from said mental disorder.

21. The use of claim 19, wherein the presence a haplotype "AG" at biallelic markers 24169/139 and 24-247/216 is indicative of said individual suffering from or being at risk of suffering from said mental disorder.

22. The use of claim 19, wherein presence of a haplotype "AA" at biallelic markers 24-257/320 and 99-24175/218 is indicative of said individual suffering from or being at risk of suffering from said mental disorder.

23. Use of at least one PP2A/Bγ-related biallelic marker for determining whether there is a significant association between said marker and a mental disorder.

24. The use of claim 23, wherein said PP2A/Bγ-related biallelic marker is selected from the group consisting of 99-24169/139, 24-257/320, 99-24175/218 and 24-247/216 as depicted in table 3A and the complements thereof.

25. The use of any of claims 18 to 24, wherein said mental disorder is selected from the group consisting of bipolar disorder, schizophrenia and depression.

26. The use of claim 25, wherein said mental disorder is bipolar disorder.

27. A method of genotyping comprising the step of determining the identity of a nucleotide at a PP2A/Bγ-related biallelic marker or the complement thereof in a biological sample.

28. The method of claim 27, wherein said biological sample is derived from a single subject.

29. The method of claim 28, wherein the identity of the nucleotides at said biallelic marker is determined for both copies of said biallelic marker present in said individual's genome.

30. The method of any of claims 27 to 29, wherein said determining is performed by a microsequencing assay.

31. The method of any of claims 27 to 30, further comprising amplifying a portion of said sequence comprising the biallelic marker prior to said determining step.

32. The method of claim 31, wherein said amplifying is performed by PCR.

33. A method of diagnosing a mental disorder in an individual comprising the step of genotyping at least one PP2A/Bγ-related biallelic marker according to the method of any of claims 28 to 32.

34. The method of claim 33 further comprising the step of correlating the result of the genotyping step with a risk of suffering from said mental disorder.

35. The method of claims 33 or 34, wherein said PP2A/Bγ-related biallelic marker is selected from the group consisting of 99-24169/139, 24-257/320, 99-24175/218 and 24-247/216 as depicted in table 3A and the complements thereof.

36. The method of claim 35, wherein presence of a genotype "AA" at biallelic marker 99-24169/139 is indicative of a risk of suffering from said mental disorder.

37. The method of claim 35, wherein the presence a haplotype "AG" at biallelic markers 24169/139 and 24-247/216 is indicative of a risk of suffering from said mental disorder.

38. The method of claim 35, wherein presence of a haplotype "AA" at biallelic markers 24-257/320 and 99-24175/218 is indicative of a risk of suffering from said mental disorder.

39. The method of any of claims 33 to 38, wherein said mental disorder is selected from the group consisting of bipolar disorder, schizophrenia and depression.

40. The method of claim 39, wherein said mental disorder is bipolar disorder.

41. Use of a polynucleotide comprising a contiguous span of at least 12 nucleotides of SEQ ID NO: 37 or a polynucleotide complementary thereto in a microsequencing assay for determining the identity of the nucleotide at a PP2A/Bγ-related biallelic

marker, wherein the 3' end of said polynucleotide is located 1 nucleotide upstream of said PP2A/Bγ-related biallelic marker in said sequence.

42. The use of claim 41, wherein said at least one PP2A/Bγ-related biallelic marker is selected from the group consisting of 99-24169/139, 24-257/320, 99-24175/218 and 24-247/216 as depicted in table 3A and the complements thereof.